REMARKS

This Amendment responds to the Office Action dated August 2, 2004. Applicants hereby request reconsideration of the objections/rejections set forth in the Office Action in view of these remarks. Claim 2 has been amended to correct a typographical error.

The Examiner has rejected claims 1 and 3 through 9 under 35 U.S.C. § 103(a). The summary of the Office Action states that claims 1 through 9 are rejected; However, the Office Action proper does not mention claim 2. The Applicant does not consider claim 2 to be properly rejected. The rejections of the remaining claims are traversed because: (1) there are several claim limitations that were not taught or suggested by the references cited, and (2) the references are from non-analogous art.

A.   Claims 1, 3, and 4 are not obvious because not all the limitations are taught or suggested by the cited references

Claims 1, 3, and 4 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Makarios (U.S. Patent No. 6,553,402 B1) in view of Beser (U.S. Patent No. 6,170,061). These rejections are traversed. Each and every claim limitation must be taught or suggested by the prior art to make a prima facie case of obviousness. MPEP 2143.04. Here, the prima facie case of obviousness has not been met because at least the following claim elements are missing from the cited references: (1) the virtual network communication system, (2) the coordinator manager, (3) the coordinators at each of the different sites; and (4) the shared tuple space.

Regarding claim 1, neither of the references disclose the recited "virtual network communication system." The references do not teach anything more than real physical networks. Furthermore, neither of the references disclose "at least one private tuple space within each of said sites for effecting intra-site communications between agents at each of said sites," as also

recited in claim 1. The Examiner has alleged that Makarios et al. discloses this feature in Figure 2 items 204 and 214. But, there are no such items in Figure 2. The Applicant assumes that the Examiner may have been referring to items 30 and/or 50. In any event, the items cited do not correspond to the claim limitation. The items are not private. Furthermore, the purposes of these tuple spaces is not to effect intra-site communication between agents at each of said sites. Rather, the items 30 and 50 serve both an intra and inter site function.

Additionally, the Examiner alleges that the claimed "coordinator manager" is provided for in Makarios by "a coordination entity configured to provide storage location information of a tuple stored on a first server to a second server over the computer network in response to a request for the storage location information of the tuple," in the Makarios reference. The Applicant respectfully disagrees. First, the Examiner's column and line citation of Makarios does not support the statements made by the Examiner. Secondly, even if Makarios does provide for "requests for storage location information," it does not provide for the claimed "receiving user initiated communication requests."

The references do not teach the claim 1 limitation of coordinators at the different sites which "embed messages from ... user agents in secure tuples and exchange said secure tuples over [the] Shared Tuple Space." The Examiner's application of Beser et al. to this portion of the claims is erroneous. The claims call for instances of coordinators at each of said different sites to provide the functionality in question. The Examiner has not demonstrated this configuration.

Finally, the Examiner also asserts that the "shared tuple space" of claim 1 is equivalent to "an information space constructed to span a group of one or more server systems." The Applicant respectfully disagrees. Claim 1 provides for a distinct independent tuple space to post shared tuples effective for inter-site communication between the different sites. According to

Makarios et al., various tuple spaces are aggregated and operated on as though they were a single large entry space; however, this is not equivalent to providing a single distinct space. Nor does the reference provide for the communication functionality to which the shared tuple space of claim 1 is directed.

Claims 3 and 4 are dependent on claim 1, and thus, according to the above distinctions, there is no prima facie case of obviousness regarding these claims either.

B. Claims 5-9 are not obvious because not all the limitations are taught or suggested by the cited references

In the Office Action claims 5-9 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Makarios (U.S. Patent No. 6,553,402 B1) in view of Beser (U.S. Patent No. 6,170,061) and in further view of Brickell (U.S. Patent No. 4,845,749). Regarding claim 5, it is dependent on claim 1 and according to the above distinctions, there is no prima facie case of obviousness regarding claim 5. Regarding claim 6, the recited "virtual network communications" are not taught or suggested by the references. The references do not teach anything more than real physical networks. Additionally, the "shared tuple space" of claim 6 is distinct from Makarios et al. as explained above. Furthermore, the "coordinator manager" of claim 6 is not taught or suggested by the references as explained above.

The references do not teach the claim 6 limitation of "managing instances of Coordinators at each of [the] different sites for embedding [the] messages in secure tuples over a Shared Tuple Space between said different sites." As in claim 1, the Examiner's application of Beser et al. to this portion of the claims is erroneous. The claims call for instances of

coordinators at each of said different sites to provide the functionality in question. The Examiner has not demonstrated this configuration.

Claims 7-9 are dependent on claim 6, and thus, according to the above distinctions, there is no prima facie case of obviousness regarding these claims either.

C. The obviousness rejection is improper because the references cited are from non-analogous art

In any event, a prima facie case of obviousness has not been made against the claims of the present application because none of the cited references are analogous art. In order for art to be analogous, it must be (1) within the field of endeavor, or (2) reasonably pertinent to the problem addressed by the invention (*In Re Deminski*). In applying the first test, it is not enough that the reference in question relate to the same industry (*In Re Clay*). The quote of *In Re Clay* compared teachings in order to identify the relative fields of endeavor. The field of endeavor of the primary reference, Makarios et al. is parallel and distributed computing for a group or array of processors. The field of endeavor of the present invention is collaborative software systems, more particularly the use of collaborative software systems over virtual networks, and even more specifically, mechanisms for securing that use. The remaining references do not cure this deficiency, i.e. those fields of those references do not correspond to securing collaborative software systems over a virtual network.
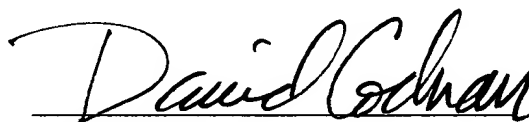
Neither does the second criteria of analogous art apply. In order to be pertinent to the problem addressed by the instant invention, it would be necessary to address virtual networks incorporating mobile communication systems. None of the cited references address this significant aspect of the problem addressed by the instant invention.

D. Conclusion

The Applicant respectfully requests the withdrawal of the rejections on the grounds of obviousness in light of the aforementioned arguments, each one of which constitutes a fatal defect in the allegation. It is believed that the claims, as now presented, are in condition for allowance.

Respectfully submitted,

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